

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Previously Presented): A wiring member comprising:

a sheet-like porous substrate provided with a large number of open-cells which are three-dimensionally branched and opened to a first major surface as well as to a second major surface of the porous substrate, apertures of the open-cells on the first major surface having an average diameter and an average aperture ratio, at least one of which is smaller than that of the second major surface; and

a conductive portion formed on the first major surface of the porous substrate and formed at least partially an inter-penetrating structure together with the porous substrate at an interface of the porous substrate;

wherein the average diameter of the apertures of the first major surface of the porous substrate is 20% or less of the average diameter of the apertures of the second major surface.

Claim 2 (Original): The wiring member according to claim 1, wherein the porous substrate is formed of an organic material.

Claim 3 (Original): The wiring member according to claim 1, wherein the porous substrate is formed of an inorganic material.

Claim 4 (Original): The wiring member according to claim 1, wherein the porous substrate is formed of a composite material containing an organic material and an inorganic material.

Claim 5 (Canceled):

Claim 6 (Previously Presented): The wiring member according to claim 1, wherein the average diameter of the apertures of the first major surface of the porous substrate is within a range of 1 to 100 nm.

Claim 7 (Previously Presented): The wiring member according to claim 1, wherein the average diameter of the apertures of the second major surface of the porous substrate is within a range of 0.5 to 10 μ m.

Claim 8 (Previously Presented): The wiring member according to claim 1, wherein the average aperture ratio of the first major surface of the porous substrate is 80% or less of the average aperture ratio of the second major surface.

Claim 9 (Currently Amended): The wiring member according to claim 8, wherein the average aperture ratio of the first major surface of the porous substrate is within a range of 5 to 40% of the ~~average number of the apertures~~ average aperture ratio of the second major surface.

Claim 10 (Previously Presented): The wiring member according to claim 8, wherein the average aperture ratio of the second major surface of the porous substrate is within a range of 50 to 95%.

Claim 11 (Original): The wiring member according to claim 1, wherein the conductive portion includes an exposed portion which is exposed from the first major surface of the porous substrate, and the inter-penetrating portion has a thickness which is 5 to 50% of the thickness of the exposed portion.

Claim 12 (Currently Amended): A method for manufacturing a wiring member comprising:

preparing a sheet-like porous substrate provided with a large number of open-cells which are three-dimensionally branched and opened to a first major surface as well as to a second major surface of the porous substrate, apertures of the first major surface having an average diameter and an ~~average number of apertures~~ average aperture ratio, at least one of which is smaller than that of the second major surface;

coating a suspension comprising a dispersing medium and conductive fine particles dispersed in the dispersing medium on at least part of the first major surface;

permitting the dispersing medium of the suspension to penetrate into the porous substrate while permitting a portion of the conductive fine particles to remain on the first major surface, a residual portion of the conductive fine particles being permitted to penetrate into the open-cells; and

heat-treating the porous substrate having the conductive fine particles deposited on the first major surface and penetrated into the open-cells to sinter the conductive fine particles, thereby forming a conductive portion on the first major surface and forming at least partially an inter-penetrating structure between the conductive fine particles and the porous substrate;

wherein the average diameter of the apertures of the first major surface of the porous substrate is 20% or less of the average diameter of the apertures of the second major surface.

Claim 13 (Canceled):

Claim 14 (Previously Presented): The method for manufacturing a wiring member according to claim 12, wherein the average diameter of apertures of the first major surface of the porous substrate is within a range of 1 to 100 nm.

Claim 15 (Currently Amended): The method for manufacturing a wiring member according to claim 12, wherein the ~~average number of apertures~~ average aperture ratio of the first major surface of the porous substrate is 80% or less of the ~~average number of apertures~~ average aperture ratio of the second major surface.

Claim 16 (Currently Amended): The method for manufacturing a wiring member according to claim 15, wherein the ~~average number of apertures~~ average aperture ratio of the first major surface of the porous substrate is within the range of 5 to 40% of the ~~average number of the apertures~~ average aperture ratio of the second major surface.

Claim 17 (Original): The method for manufacturing a wiring member according to claim 12, wherein the conductive fine particles have a particle diameter ranging from 1 to 100 nm.

Claim 18 (Previously Presented): The method for manufacturing a wiring member according to claim 12, wherein the conductive fine particles have a particle diameter which is 10 to 100% of the average diameter of apertures of the first major surface of the porous substrate.

Claim 19 (Previously Presented): The method for manufacturing a wiring member according to claim 12, wherein the suspension is coated onto the first major surface by a screen printing method, an intaglio printing method or an ink jet printing method.

Claim 20 (Original): The method for manufacturing a wiring member according to claim 12, wherein the sintering of the conductive fine particles is performed for 30 minutes to 5 hours at a temperature ranging from 150 to 250°C.

Claim 21 (Currently Amended): A wiring member comprising:
a sheet-like porous substrate provided with a large number of open-cells which are three-dimensionally branched and opened to a first major surface as well as to a second major surface of the porous substrate, apertures of the open-cells on the first major surface having an average diameter and an ~~average number of the apertures~~ average aperture ratio, at least one of which is smaller than that of the second major surface;

a conductive portion formed on the first major surface of the porous substrate and formed at least partially an inter-penetrating structure together with the porous substrate at an interface of the porous substrate; and

wherein the ~~average number of the apertures~~ average aperture ratio of the first major surface of the porous substrate is 80% or less of the ~~average number of the apertures~~ average aperture ratio of the second major surface.

Claim 22 (Previously Presented): The wiring member according to claim 21, wherein the porous substrate is formed of an organic material.

Claim 23 (Previously Presented): The wiring member according to claim 21, wherein the porous substrate is formed of an inorganic material.

Claim 24 (Previously Presented): The wiring member according to claim 21, wherein the porous substrate is formed of a composite material containing an organic material and an inorganic material.

Claim 25 (Previously Presented): The wiring member according to claim 21, wherein the average diameter of the apertures of the first major surface of the porous substrate is 20% or less of the average diameter of the apertures of the second major surface.

Claim 26 (Previously Presented): The wiring member according to claim 25, wherein the average diameter of the apertures of the first major surface of the porous substrate is within a range of 1 to 100 nm.

Claim 27 (Previously Presented): The wiring member according to claim 25, wherein the average diameter of the apertures of the second major surface of the porous substrate is within a range of 0.5 to 10 μ m.

Claim 28 (Currently Amended): The wiring member according to claim 21, wherein the ~~average number of the apertures~~ average aperture ratio of the first major surface of the porous substrate is within a range of 5 to 40% of the ~~average number of the apertures~~ average aperture ratio of the second major surface.

Claim 29 (Currently Amended): The wiring member according to claim 21, wherein the ~~average number of the apertures~~ average aperture ratio of the second major surface of the porous substrate is within a range of 50 to 95%.

Claim 30 (Previously Presented): The wiring member according to claim 21, wherein the conductive portion includes an exposed portion which is exposed from the first major surface of the porous substrate, and the inter-penetrating portion has a thickness which is 5 to 50% of the thickness of the exposed portion.

Claim 31 (Currently Amended): A method for manufacturing a wiring member comprising:

preparing a sheet-like porous substrate provided with a large number of open-cells which are three-dimensionally branched and opened to a first major surface as well as to a second major surface of the porous substrate, apertures of the first major surface having an average diameter and an ~~average number of apertures~~ average aperture ratio, at least one of which is smaller than that of the second major surface;

coating a suspension comprising a dispersing medium and conductive fine particles dispersed in the dispersing medium on at least part of the first major surface;

permitting the dispersing medium of the suspension to penetrate into the porous substrate while permitting a portion of the conductive fine particles to remain on the first major surface, a residual portion of the conductive fine particles being permitted to penetrate into the open-cells; and

heat-treating the porous substrate having the conductive fine particles deposited on the first major surface and penetrated into the open-cells to sinter the conductive fine particles, thereby forming a conductive portion on the first major surface and forming at least

partially an inter-penetrating structure between the conductive fine particles and the porous substrate;

wherein the ~~average number of the apertures~~ average aperture ratio of the first major surface of the porous substrate is 80% or less of the ~~average number of the apertures~~ average aperture ratio of the second major surface.

Claim 32 (Previously Presented): The method for manufacturing a wiring member according to claim 31, wherein the average diameter of apertures of the first major surface of the porous substrate is 20% or less of the average diameter of apertures of the second major surface.

Claim 33 (Previously Presented): The method for manufacturing a wiring member according to claim 31, wherein the average diameter of apertures of the first major surface of the porous substrate is within a range of 1 to 100 nm.

Claim 34 (Currently Amended): The method for manufacturing a wiring member according to claim 31, wherein the ~~average number of apertures~~ average aperture ratio of the first major surface of the porous substrate is within a range of 5 to 40% of the ~~average number of the apertures~~ average aperture ratio of the second major surface.

Claim 35 (Previously Presented): The method for manufacturing a wiring member according to claim 31, wherein the conductive fine particles have a particle diameter ranging from 1 to 100 nm.

Claim 36 (Previously Presented): The method for manufacturing a wiring member according to claim 31, wherein the conductive fine particles have a particle diameter which is 10 to 100% of the average diameter of apertures of the first major surface of the porous substrate.

Claim 37 (Previously Presented): The method for manufacturing a wiring member according to claim 31, wherein the suspension is coated onto the first major surface by a screen printing method, an intaglio printing method or an ink jet printing method.

Claim 38 (Previously Presented): The method for manufacturing a wiring member according to claim 31, wherein the sintering of the conductive fine particles is performed for 30 minutes to 5 hours at a temperature ranging from 150 to 250°C.